

REMARKS

In the Office Action, claim 9 was objected to for containing informalities. Claims 1-5 and 9-14 were rejected under § 102 as being anticipated by USP 5,717,600 issued to Ishizuka (Ishizuka), USP 4,615,011 issued to Linsker (Linsker), USP 6,378,121 issued to Hiraga (Hiraga), and USP 5,889,677 issued to Yasuda (Yasuda). Claims 1, 5, 9, and 10 were further rejected as being anticipated by USP 6,543,043 issued to Wang et al. (Wang). In addition, claims 1, 9, and 10 were further rejected under § 102 as being anticipated by USP 6,519,751 issued to Sriram et al. (Sriram) and USP 5,659,484 issued to Bennett et al. (Bennett). Finally, claims 6-8, and 15-17 were objected to by virtue of their dependence upon a rejected base claim. In this Amendment, Applicants have amended claims 1-3, 6, 9, 10-12 and 15. No claims have been added or deleted. Accordingly, claims 1-17 will be pending after entry of this Amendment.

I. Informalities in Claims 1-3, 6, 9-12 and 15

Claim 9 was objected to because “the estimated routing cost” lacked antecedent basis. Also, the claim contained grammatical errors as it referred to “the identified routed” instead of “the identified route”. In this Amendment, Applicants have amended claim 9 to correct the lack of antecedent basis and the grammatical error. In addition, Applicants have amended claims 1-3, 6, 10-12 and 15 to correct certain informalities in these claims.

II. Claims 1-5

Claims 1-5 were rejected under § 102 as being anticipated independently by Ishizuka, Linsker, Hiraga, and Yasuda. Claims 1 and 5 were further rejected as being anticipated by Wang.

In addition, Claim 1 was further rejected as being anticipated independently by Sriram and Bennett. Applicants respectfully traverse these rejections.

Claims 2-5 are dependent directly or indirectly on independent claim 1. Claim 1 recites a method of routing a group of nets in a region. This method identifies a first route for a first net.

5 The method then determines whether embedding the first route in the region will make a set of unrouted nets in the region unroutable. When embedding the first route will make the set of unrouted nets unroutable, the method identifies a second route for the first net.

Applicants respectfully submit that the cited references do not disclose such a method. Specifically, Applicants respectfully submit that the cited art does not disclose a method that:

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- identifies a first route for a first net;
 - determines whether embedding the first route in the region will make a set of unrouted nets in the region unroutable; and
 - when embedding the first route will make the set of unrouted nets unroutable, identifies a second route for the first net.

15 None of the cited references account for routability of a set of unrouted nets when determining whether to embed a first route. Accordingly, it is impossible for the cited references to identify a second route when embedding the first route would make the set of unrouted nets unroutable. Therefore, none of the cited references disclose a method that determines whether embedding a first route for a first net in a region will make a set of unrouted nets unroutable and
20 identifies a second route for the first net when embedding the first route for a net in a region will make the set of unrouted nets unroutable.

Accordingly, Applicants respectfully submit that the cited references do not render claim 1 unpatentable. As claims 2-5 are dependent on claim 1, Applicants respectfully submit that claims 2-5 are patentable over the cited references for at least the same reasons that were
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discussed above for claim 1. In view of the foregoing, Applicants respectfully request reconsideration and withdrawal of the § 102 rejection of claims 1-5.

III. Claim 9

Claim 9 was rejected under § 102 as being anticipated independently by Ishizuka, Linsker, and Hiraga, Yasuda, Wang, Sriram and Benett.

Claim 9 recites a method of routing a group of nets within a region. This method identifies a route for a net. The method then determines whether to embed the identified route based on an estimated routing cost of a set of unrouted nets in the region when the region contains the identified route.

Applicants respectfully submit that the cited references do not disclose such a method. Specifically, Applicants respectfully submit that the cited art does not disclose a method that:

- identifies a route for a net, and
- determines whether to embed the identified route based on an estimated routing cost of a set of unrouted nets in the region when the region contains the identified route.

None of cited references disclose a method that accounts for an estimated routing cost of a set of unrouted nets. Therefore, none of the cited references disclose a method that determines whether to embed an identified route based on an estimated routing cost of a set of unrouted nets. Accordingly, Applicants respectfully submit that the cited references do not render claim 9 unpatentable. In view of the foregoing, Applicants respectfully request reconsideration and withdrawal of the § 102 rejection of claim 9.

IV. Claims 10-14

Claims 10-14 were rejected under § 102 as being anticipated independently by Ishizuka, Linsker, Hiraga, and Yasuda. Claim 10 was further rejected as being anticipated by Wang, Sriram and Bennett.

5 Claims 11-14 are dependent directly or indirectly to independent claim 10. Claim 10 is analogous to claim 1, except that claim 10 recites a computer program embedded in a computer readable medium, whereas claim 1 recites a method. Accordingly, Applicants respectfully submit that claim 10 is patentable over the cited references for the same reasons as claim 1. Moreover, as claims 11-14 are dependent on claim 10, Applicants respectfully submit that claims
10 11-14 are patentable over the cited references for at least the same reasons. In view of the foregoing, Applicants respectfully request reconsideration and withdrawal of the § 102 rejection of claims 10-14.

V. Allowable Claims

15 The Examiner found that claims 6-8 and 15-17 contain allowable subject matter, but objected to these claims as being dependent upon rejected base claim 1 or 10. Applicants thank the Examiner for the finding of allowability of these claims. However, in this Amendent, Applicants have not rewritten these claims in independent form as their intervening base claims are believed to be allowable as discussed above.

CONCLUSION

In view of the foregoing, it is submitted that all pending claims, namely claims 1-17, are in condition for allowance. Reconsideration of the rejections and objections is requested. Allowance is earnestly solicited at the earliest possible date.

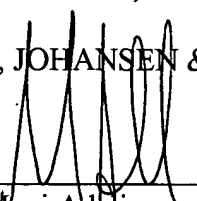
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Respectfully submitted,

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